

Notice of Allowability

Application No.

10/664,617

Examiner

Ling-Siu Choi

Applicant(s)

SHAH, VIPUL J.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/26/2006.
2. ☒ The allowed claim(s) is/are 31-84.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. This Office Action is in response to the Amendment filed May 26, 2006. Claims 1-30 were canceled and claims 31-84 are now pending, wherein claims 31, 39, 59, and 72 are independent claims.

Examiner's Amendment

2 An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CAR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms Cynthia R. Moore on June 19, 2006.

3. The application has been amended as follows:

Claim 73, line 1, delete "hydrocarbyl or".

Allowable Subject Matter

4. Claims 31-84 are allowed.

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5. The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest references: Gjerde et al. (US 6,355,791 B1).

A method of separating a mixture of analytes, comprising	
1	applying the mixture of analytes to a chromatography sorbent comprising polymer beads of aromatic vinyl monomers substituted with hydrocarbyl, <u>halocarbyl substituents</u> , or combinations thereof, comprising from 1 to 1,000,000 carbon atom wherein the aromatic vinyl monomers or the hydrocarbyl substituents or both have been functionalized by <u>halogenation</u> , provided that when the vinyl aromatic monomers are brominated, bromination is performed utilizing electrophilic aromatic substitution; and
2	removing polar analytes from the chromatography sorbent by a hydrophilic solvent wash

(summary of claim 31)

Gjerde et al. disclose a method to separate a mixture of double stranded polynucleotide fragments having up to 1500 base pairs, the method comprising (a) applying the mixture to a polymeric separation medium having non-polar surfaces, wherein the surfaces are characterized by being substantially free from multivalent cations which are free to bind with DNA, wherein the surfaces are the surfaces of the interstitial spaces of a polymeric monolith and (b) separating the mixture of polynucleotides, wherein the polymeric monolith includes poly(styrene-divinylbenzene) which is brominated to move the remaining double bonds on the surface thereof

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(Example 7; claims 1 and 9). Thus, Gjerde et al. do not teach or fairly suggest a method of separating a mixture of analytes by using a chromatography sorbent comprising polymer beads of aromatic vinyl monomers substituted with hydrocarbyl, halocarbyl substituents, or combinations thereof, wherein the aromatic vinyl monomers or the hydrocarbyl substituents or both have been functionalized by halogenation and when the vinyl aromatic monomers are brominated, bromination is performed utilizing electrophilic aromatic substitution.

In light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.

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LING-SUI CHOI
PRIMARY EXAMINER

June 15, 2005